

REMARKS

In the Office Action mailed May 12, 2006, claims 1-18 were rejected under 35 U.S.C. §101; claims 1-2 and 16-17 were rejected under 35 U.S.C. §102(b); and claims 1 and 3-18 were rejected under 35 U.S.C. §103(a) (three different rejections). Claims 1-69 were pending at the time of the Office Action with claims 19-69 withdrawn. Claims 1-4, 7-16, and 18 are hereby amended and claims 5 and 17 canceled. Claims 1-4, 7-16, and 18-69 remain pending. Accordingly, Applicants respectfully request reconsideration of claims 1-4, 7-16, and 18 in view of the foregoing amendments and the following remarks.

I. 35 U.S.C. §101

Claims 1-18 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-4, 7-16, and 18 were amended so that these claims clearly recite statutory subject matter. Specifically, independent claim 1 recites:

transmitting, from the data processing device, an output
representing a human factors process failure modes and effects
analysis report.

The transmitted report is clearly a useful, concrete and tangible result. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection to claims 1-4, 6-16, and 18.

II. Rejections under 35 USC 102(b)

Claims 1-2 and 16-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sogg ("An Integrated Systems Approach to Human Factors in Commercial Aviation Maintenance Systems").

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As amended independent claim 1 recites in part:

receiving, at a data processing device, inputs representing at least one task involved in the process, the task including at least one human activity and described using at least one verb;
extracting, with the data processing device, the at least one verb from the received inputs representing the at least one task involved in the process;
searching, with the data processing device, a database for at least one potential human error resulting from the human activity, the at least one potential human error resulting from the human activity being related to the at least one verb extracted by the data processing device;
transmitting, from the data processing device, an output representing the at least one potential human error;
receiving, at the data processing device, an input representing a likelihood of occurrence of the human error;
receiving, at the data processing device, an input representing a likelihood of correction of the human error;
receiving, at the data processing device, an input representing a potential severity of an effect of the human error;
calculating, with the data processing device, a risk of potential harm from the received inputs representing the likelihood of occurrence of the human error, the likelihood of correction of the human error, and the potential severity of the effect resulting from the human error;
comparing, at the data processing device, the calculated risk of potential harm with a risk threshold;
transmitting, from the data processing device, an output representing errors that exceed the risk threshold;
receiving, at the data processing unit, an input representing additional analysis of errors that exceed the risk threshold; and
transmitting, from the data processing device, an output representing a human factors process failure modes and effects analysis report.

As an initial matter Sogg fails to clearly teach using a computer or data processing device as recited by independent claim 1. Additionally, Sogg fails to teach “searching, with the data processing device, a database”; “calculating, with the data processing device, a risk of potential harm”; or “comparing, at the data processing device, the calculated risk of potential harm with a

risk threshold". Accordingly, Sogg fails to teach and/or suggest the claimed invention. Therefore, Applicants request reconsideration and withdrawal of the rejection of claims 1-2 and 16-17.

III. Rejections under 35 USC 103(a)

Claims 1, 7-9, 11-16, and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the acknowledged prior art in the "Background of the Invention" in the present application ("APA") in view of Al-Shilhabi ("A Framework for Modeling Human-like Driving Behaviors for Autonomous Vehicles in Driving Simulators"). Claims 3-5, 10, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Al-Shilhabi and further in view of Eiff ("At-Risk Safety Metric – A Proactive Safety Measurement Strategy"). Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Al-Shilhabi and further in view of Luxhoj (Risk Analysis of Human Performance in Aviation Maintenance"). Applicants respectfully request reconsideration and withdrawal of these rejections.

The APA fails to clearly teach using a computer or data processing device as recited by independent claim 1. Additionally, the APA fails to teach "searching, with the data processing device, a database"; "calculating, with the data processing device, a risk of potential harm"; or "comparing, at the data processing device, the calculated risk of potential harm with a risk threshold". Neither Al-Shilhabi, Eiff, nor Luxhoj alone or in combination (Applicant's assert that a person of ordinary skill would not be motivated to combine at least Al-Shilhabi with the other cited references) correct these deficiencies in the APA. Claims 3-4, 6-16 and 18 depend either directly or indirectly from claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the three rejections under 35 U.S.C. §103(a).

Furthermore, "the PTO bears the burden of establishing a case of *prima facie* obviousness." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must present evidence showing the following three criteria are met: (1) there must be some suggestion or motivation to modify the reference or combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all claim limitations. MPEP §2143. "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art." *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, a *prima facie* case of obviousness has not been established because there has been no showing of any suggestion or motivation to combine the teachings of the cited references. "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

The APA, Eiff, and Luxhoj appear to be from the field of error and risk analysis. In contrast, Al-Shihabi is from the field of driving simulators and the driving behavior models used for driving simulators. Clearly, the APA, Eiff, and Luxhoj are from completely different fields of endeavor than Al-Shihabi. Therefore, there is no motivation to combine Al-Shihabi with APA, Eiff, and Luxhoj.

Furthermore, Applicants respectfully submit that to selectively choose certain teachings of either reference and combine those teachings with the other reference would involve impermissible hindsight analysis. The Federal Circuit has cautioned that when analyzing the patentability of claims pursuant to 35 USC § 103(a), the phrase "at the time the invention was made" is the statutory phrase "that guards against entry into the tempting but forbidden zone of

hindsight.” *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d 1614 (Fed. Cir. 1999) (quotation marks omitted). “[T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999); *citing In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).


For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of: (1) claims 1, 7-9, 11-16, and 18 under 35 U.S.C. §103(a) as being unpatentable over the APA” in view of Al-Shilhabi; (2) claims 3-5, 10, and 17 under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Al-Shilhabi and further in view of Eiff; and (3) claim 6 under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Al-Shilhabi and further in view of Luxhoj.

CONCLUSION

Applicants respectfully submit pending claims 1-4, 6-16, and 18 are now in condition for allowance. If there are any remaining matters that may be handled by telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

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